

ZARINS, L.

Latvian maples and their significance in building forests. p. 63.

BIOLOGICHESKAJA NAUKA, SELSKOMU I LESNOMU KHOZIAISTVU. (Latvijas PSR  
Zinatnu akademijs. Biologijas zinatnu nedala) Riga, Latvia, No. 3, 1957.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

ZARINS, P.; ANGERS, F.; PLAUDE, O.; RIEKSTINS, J.; PETERSONE, A.

[Storage and processing of farm products] Lauksaimniecības  
produktu uzglabāšana un pārstrāde. Rīga, Latvijas  
valsts izd-va, 1964. 378 p. 2. papildinātais izdevums.  
(MIRA 17:5)

ZIBENS, R.; ZARINS, V.; PETERSONS, P., red.; CAKSS, J., tekhn. red.

[Use of draft horses in agriculture] Darba zirgu izmanto-  
šana lauksaimnieciba. Riga, Valsts izdevnieciba, 1961. 58 p.  
(MIRA 15:3)

(Latvia--Draft horses)

SOV/85-58-12-25/38

AUTHOR: Zarinsk, E., Public Instructor, Latvian SSR

TITLE: New Teams (Novyye kruzhki)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 12, p 20 (USSR)

ABSTRACT: The author tells of the growing popularity of model aircraft building among students of Latvian intermediate and village schools.

Card 1/1

DELLO, A.V.; ZARINSKIY, O.N.; LUR'YE, N.S.; SHAROYKO, P.M.;  
KACHKACHEV, A.Z., otv. red.

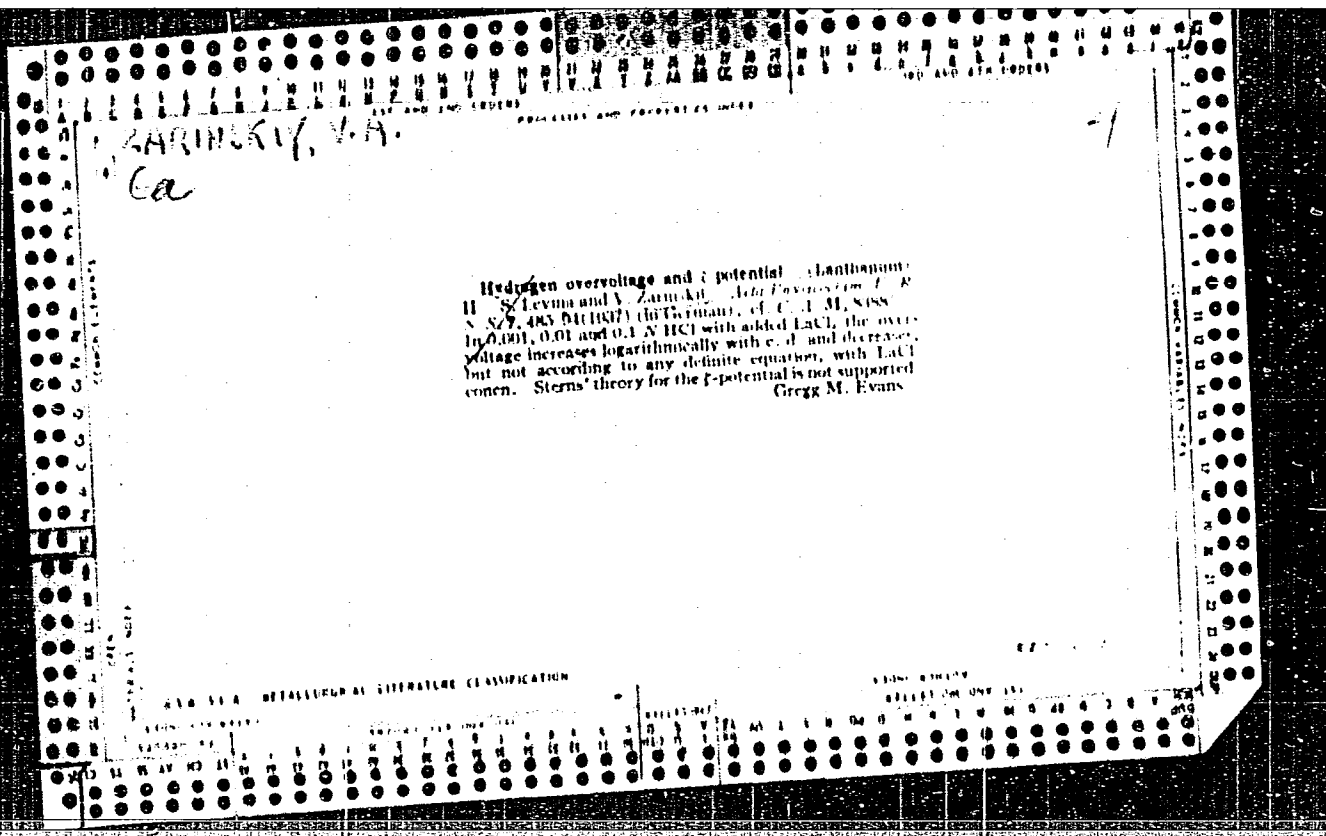
[Industrial pipe fittings; catalog] Promyshlennaia truboprovodnaia armatura; katalog-spravochnik. Moskva, GOSINTI, Pt.3. [Safety, reduction, regulating and mixing valves, injectors, condenser returns, and electric drives for the control of these fittings] Klapany predokhranitel'nye, regulatory davleniya, inzhektory, kondensatootvodchiki i elektroprivody dlia upravleniya armaturoi. 1963. 238 p. (MIRA 17:3)

1. Leningrad. Tsentral'noye konstruktorskoye byuro  
Armaturostroyeniya.

BURTSEV, Konstantin Nikolayevich; SHALIN, V.N., kand. tekhn.nauk,  
retsenzent; ZARINSKIY, O.N., inzh., red.; KURDEPINA, G.N.,  
red. izd-va; SHEKHETININA, L.V., tekhn. red.

[Metal bellows] Metallicheskie sil'fony. Moskva, Mashgiz,  
1963. 159 p. (MIRA 16:6)

(Bellows)



ZARINSKIY, V. A.

Hydrogen overvoltage and  $\zeta$ -potential. II. S.  
 Levina and V. ZARINSKI (J. Phys. Chem. Russ., 1937, 10, 586-592;  
 cf. A., 1937, I, 521).- The over-voltage on a resting Hg cathode  
 in aq. HCl does not depend on [HCl] between  $10^{-3}$  and  $10^{-1}$  M but  
 increases on addition of  $\text{LaCl}_3$ ; this exceeds 0.1 v. when  $10^{-3}$   
 mol.  $\text{LaCl}_3$  is added to  $10^{-3}$  mol. HCl. The results are discussed on  
 the assumption that the overvoltage is connected with the electro-osmotic  
 potential.  
 J. J. B.



ZARINSKIY, V. A.

CA

Overvoltage of hydrogen on a mercury cathode and the  
 r-potential. V. A. Zarinskiy, O. N. I. I. 1938, 60  
 pp.; *Khim. Referat. Zhur.* 2, No. 1, 13(1939); cf. C. A.  
 32, 40857.—A discussion of the measurement of H over-  
 voltage under especially favorable conditions and a short  
 review of other theoretical investigations of H over-  
 voltage. The theory of the slow discharge of  
 the ions, and the works of Volmer and of Frumkin are  
 discussed. A method for measuring overvoltage in H<sub>2</sub>  
 developed by Z. and Levina (cf. C. A. 31, 4100) is  
 described in detail. Expts. in vacuo with carefully purified  
 coins, and electrodes, and with a complete exclusion of  
 (are described. Accurate and dependable results, which  
 agree well with the Volmer-Frumkin theory, were ob-  
 tained. Small amounts of impurities cause large deviations  
 from true results. This explains why many of the former  
 expts. gave inaccurate results. A linear relation of the  
 overvoltage value with the log of the c. d. to  $10^{-6}$  amp./sq.  
 cm. was obtained, which proves the high degree of the  
 exptl. technique used. The influence on overvoltage of  
 an adion. of another electrolyte was studied.  
 W. R. Henn

PILINA, A.I.; SHCHERBACHEV, G.P.; ZARINSKIY, V.A.

High-frequency titration. Report No.6: Determination of fluorine  
in fluoropolymers containing and free of chlorine. Zhur.anal.khim.  
(MIRA 15:12)  
17 no.8:990-992 N '62.

1. V.I.Vernadsky Institute of Geochemistry and Analytical Chemistry,  
Academy of Sciences, U.S.S.R. and Scientific-Research Institute of  
Rubber Industry, Moscow.  
(Chlorine--Analysis) (Polymers) (Flourine compounds)

5(4), 5(2)  
AUTHORS:

SOV/75-14-2-6/27  
Zarinskiy, V. A., Frolkina, V. A., Farafonov, M. M.

TITLE:

High-voltage Electrodialysis (Vysokovol'tnyy elektrodializ).  
Communication 2. On the Separation of Impurities From Meta-  
stannic Acid (Soobshcheniye 2. O vydelenii primesey iz meta-  
olovyannoy kisloty)

PERIODICAL:

Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 2, pp 181-183  
(USSR)

ABSTRACT:

In the present paper the possibility of a quantitative separation of impurities from metastannic acid by electrodialysis is investigated. Precipitations of metastannic acid were used which contained impurities of the order of magnitude of 0.1%. Metastannic acid was produced by two different methods, both of them being described in this paper. According to method 1 (treatment of metallic tin with concentrated nitric acid) compact precipitations were obtained, according to the second method (precipitation of  $\text{Sn(OH)}_4$  with concentrated ammonia) loose, rather amorphous precipitations were formed. Electrodialysis was performed using cellophane membranes. The sample was introduced into the middle chamber of a three-chamber analyzer. The cathode chamber was filled with nitric acid ( $10^{-1} - 10^{-3}$  N), the two other chambers with bidistilled water.

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SOV/75-14-2-6/27

High-voltage Electrodialysis. Communication 2. On the Separation of Impurities From Metastannic Acid

The experiments were continued until the margining of the minimum current intensity (5-7  $\mu$ a) and the corresponding maximum voltage (2000 v). The samples taken from the cathode- and anode chamber in periodic intervals were analyzed photo-colorimetrically and polarographically. It was found that the separation of iron, copper, lead, and cadmium from gels of metastannic acid, produced according to method 2, takes place more easily because these gels have a stronger amorphous structure and more strongly dispersed particles than the gels obtained according to method 1. From amorphous precipitations, however, impurities cannot be separated quantitatively and not to the same extent. The per cent content of iron may be reduced by electrodialysis by a tenth power while the per cent content of the remaining metals (Cu, Pb, Cd) may be reduced by approximately half of a tenth power. Practically no separation of impurities from metastannic acid produced according to method 1 was observed. The authors also carried out experiments on the separation of unweighable amounts of radioactive lead (Th B) and antimony ( $^{125}\text{Sb}$ ). The distribution of radioactivity in the anode- and cathode solution and in the

Card 2/3

High-voltage Electrodialysis.

SOV/75-14-2-6/27

Communication 2. On the Separation of Impurities From Metastannic Acid

ashes of the two membranes after the end of electrodialysis showed that unweighable amounts of lead and antimony cannot be separated from metastannic acid by electrodialysis. The results of spectrum analysis of samples of metastannic acid produced by both methods after the dialysis are summarized in a table; in a further table the distribution of radioactivity of Th B in the three chambers and the membranes after electrodialysis is given. The authors thank G. N. Bilimovich for the preparation of Th B. There are 2 tables and 2 Soviet references.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR, Moskva  
(Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the AS USSR, Moscow)

SUBMITTED: April 11, 1957

Card 3/3

ZARINSKIY, V. A.

Particle discharge of an aerosol in a bipolar atmosphere.  
 N. N. Tunitskiy, V. ZARINSKIY and I. V. Petryanov. Acta  
 Physicochim U. R. S. S. 13, 327-46 (1940) (in German).-- The  
 particle discharge and that of the whole of a dil. aerosol in a  
 bipolar-ion atm. proceed according to  $Z_e = Z \cdot t^{\frac{1}{2}}$ , where  $Z$  and  $Z$   
 are the charges, at  $0^\circ$  and  $t$  and  $\rho$  is proportional to the ion  
 concn. and independent of the radius. The Einstein-Focker  
 equations for the discharge and its fluctuations are derived.  
 The exptl. data shown in 7 tables and 4 figs. on oleic acid  
 fogs with  $r=0.15 - 0.18\mu$  and charged by a Ra prepn., agree  
 well with the values calcd. from the derived equations.

F. H. Rathmann

TUNITSKIY, N.; ZARINSKIY, V.; PETRYANOV, I.

Physico-Chemical Institute imeni L. Ya. Karpov, (-1940-).

"The Charging of Aerosols in a Bipole-Ionized Atmosphere."

Zhur. Fiz. Khim., Vol. 14, No. 4, 1940.

ZARINSKIY, V. A.

CA

Reduction of samarium, neodymium, and praseodymium  
ions on mercury-drop electrode. V. A. Zarinskiy  
(Vernadskiy Inst. Geochem. Anal. Chem., Moscow).  
Zhur. Fiz. Khim. 24, 602-9 (1950).—Polarograms of 0.01  
M solns. of Sm, Nd, and Pr sulfates in the absence of  
inert electrolyte did not disclose a 2-step reduction.  
With the chlorides of these metals in 0.1 N LiCl, the  
polarograms at 1.8-1.82 v. (against a satd. HgCl elec-  
trode) indicated a bivalent intermediate in the reduction.  
The formation of a complex between Sm, Nd, and Pr and  
K citrate was studied polarographically. It was found  
from the polarograms of the sulfates of Sm, Nd, and Pr  
(against a 0.1 N LiCl background) that maxima of the  
1st order resulted. Paul W. Howerton



TROFIMOV, Ya. Ya. and ZARINSKIY, V. A.

"Problems of Detecting Bromide and Iodide in Mineral Water," Agitator's Notebook,  
No. 3, 1951, and Journal of Analytical Chemistry, Vol. 6, No. 1.

~~2129. V.A. ZARINSKIY~~ V.A.

2129. Impulse amplifier for pH measurement with the glass electrode. A. V. Trofimov and V. A. Zarinsky (J. anal. Chem., USSR, 1951, 6, 56-58). Improvements in the Morton-Leeds & Northrup apparatus are described.

ZARINSKIY, V. A.

Electrochemical Analysis

New apparatus for electrochemical methods of analysis. Zhur. anal. khim. 7,  
No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

ZARINSKIY, V. A.

USSR/Chemistry

Card 1/1

Authors : Zarinskiy, V. A., and Koshkin, D. I.

Title : High frequency titration. Part 1.-

Periodical : Zhur. Anal. Khim, 9, Ed. 1, 29-36, Jan-Febr. 1954

Abstract : An arrangement for high frequency titration working on a 4 mc quartz crystal stabilized generator is described. It is shown on the bases of acid-alkali, oxidizing-reducing titration and precipitation reactions that this new arrangement can also be used for volumetric analyses. The path of the titration curves in all investigated cases indicates that the change in total resistance of the nucleus in the solution during titration, in accordance with the current conductance measuring method, is basically determined by the change in the resistance of the solution. Thirty references. Graphs, drawings.

Institution : Acad. of Sc. USSR, The V. I. Vernadskiy Inst. of Geochemistry and Analytical Chemistry, Moscow.

Submitted : Nov. 10, 1953

ZARINSKIY, V.A.

CH High-frequency titration. II. Change in the electric properties of solutions during titration. V. A. Zarinskiy and B. I. Koshkin (V. I. Vernadskii Inst. Geochem. and Anal. Chem., Acad. Sci. USSR, Moscow). *Zhur. Anal. Khim.* 10, 111-116 (1975); *J. Anal. Chem. USSR* 10, 101-0 (1975) (Engl. translation: *cf. C.A. 49, 4462a*).—A further analysis of high-frequency titration leads to the following conclusions: For eqns. of high concn. the resistance of the cell is const. and the value of the current is detd. by the resistance of the cell walls and does not change or changes insignificantly during titration. For dil. solns. the total resistance of the cell comprises 2 resistances in series, that of the cell walls and of the soln. The value of the current during titration changes insignificantly. The sensitivity of the high-frequency setup becomes low. At low frequencies the capacitance component of total resistance caused by the cell walls is high and the changes in the resistance of the soln. are insignificant in comparison with it. The current changes insignificantly during titration. At very high concns. the capacitance resistance of the soln. is insignificant and since it becomes const., the changes in total resistance will not affect the current and the high-frequency setup becomes insensitive to changes in concn. Thus, in selecting the frequency at which titration is to be carried out it should provide for sufficient lowering of the resistance of the cell walls to increase the relative changes in the resistance of the soln. It also follows that the sensitivity of a high-frequency titration setup is max. within certain limits of electrolyte concn. A high-frequency titration app. is described and its use illustrated. M. Hensch.

Zarinski, V. A.

RUMANIA/ Analytical Chemistry. General Problems. G-1

Abs Jour: Referat. Zhur. - Khimiya, No. 8, 1957, 27113.

Author : V. A. Zarinski, I.R. Mandelberg.

Title : High Frequency Titration.

Orig Pub: An. Rom.-Sov. Metalurgie si constr. masini, 1955,  
10, No. 3, 134 - 145.

Abstract: Translation. See RZhKhim, 1956, 58354.

Card 1/1

ZARINSKIY, V.A.

USSR/Fitting Out of Laboratories. Instruments,  
Their Theory, Construction and Use

H.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4963

Author : Zarinskiy, V.A., Koshkin, D.I.

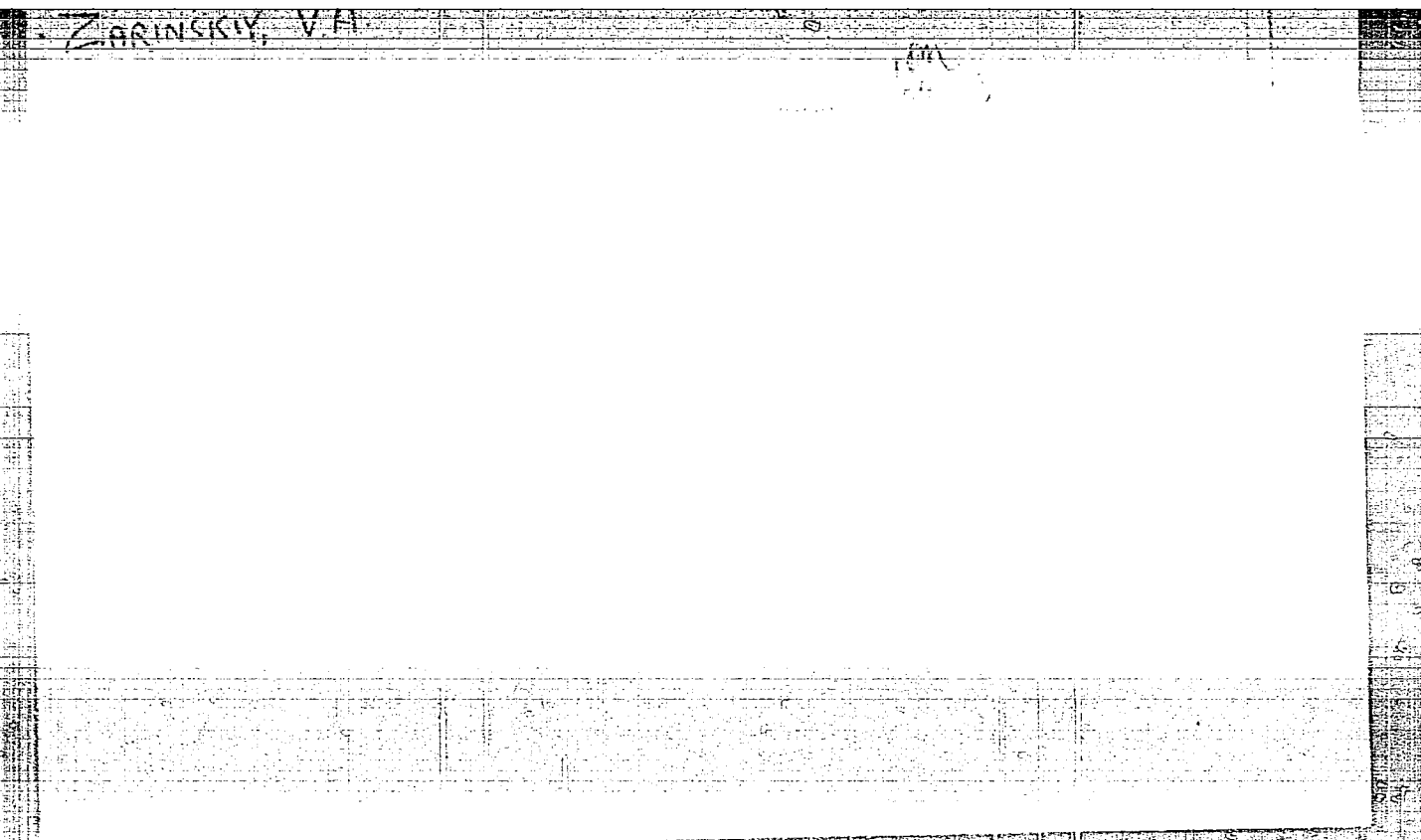
Title : Unit for High Frequency Titrations

Orig Pub : Zavod. Laboratoriya, 1956, No 1, 110-113

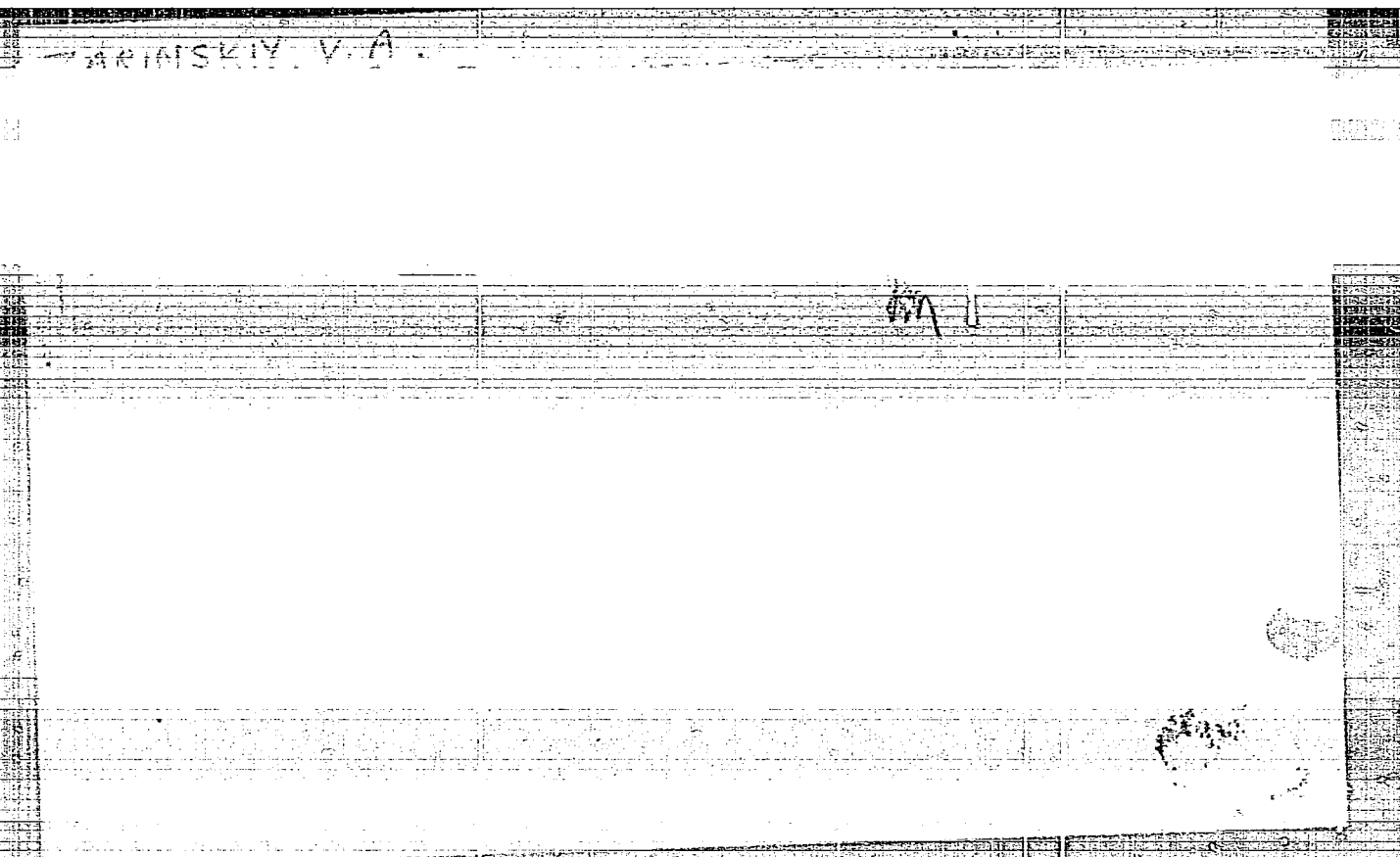
Abstract : Description of a unit for carrying out HF titrations based on reactions of neutralization, oxidation-reduction, precipitation or complex formation, in the course of which takes place a change in the conductivity of the solutions under study. The device consists of a HF generator, a titration cell inductively connected therewith, and an apparatus that indicates change in the current flowing through the cell. In comparison with a conventional conductimetric method the HF titration method has the following advantages: 1. Due to fact that the metal coatings of the cell do not come in contact with

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LARINSKY, V. A.

Distr: 1343 7

High-Frequency Titration V. A. Larinsky and I. R. Mandelberg  
J. Chem. Phys. 1957, 25, 262-270; A.P.R.R., 1957, Lib 17113.  
Sub. is practical review is given of the principles, apparatus and  
applications of high-frequency titration. (48 references)

Av. Index

ZARINSKIY, V.A.; KOSHKIN, D.I.; POL'SKIY, V.G.; GENKINA, L.A.

Control of water purification by electrical conductivity. Vest.  
AN SSSR 26 no.4:36-38 Ap '56. (MLRA 9:7)  
(Water--Purification) (Electric measurements)

**"APPROVED FOR RELEASE: 09/19/2001**

**CIA-RDP86-00513R001963820016-5**

**APPROVED FOR RELEASE: 09/19/2001**

**CIA-RDP86-00513R001963820016-5"**

AUTHORS: Zarinskiy, V. A., Farafonov, M. M., Zateyeva, V. V. 75-6-2/23

TITLE: High-Voltage Electrodialysis (Vysokovol'tnyy elektrodializ)  
Communication number 1 - Separation of Contaminations from Silicon-  
and Tungsten Acids (Soobshcheniye 1. Vydeleniye primesey iz kremne-  
voy i vol'framovoy kislot).

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1957, Vol. 12, Nr 6, pp. 677-683  
(USSR).

ABSTRACT: The traces of Fe, Cu, Pb and Cd /0,01-0,001%o/ can be isolated  
quantitatively by applying high-voltage electrodialysis of  $\text{SiO}_2$ .  
The electrodialyser has three chambers; the membranes consist of  
cellophane. A separation of Bi, Sn and Sb cannot be achieved in a  
quantitative way, since  $\text{SiO}_2$  intensely adsorbes these ions. The ana-  
lyses were carried out by means of the spectroscopic apparatus  
I.S.P.-22. The separation of Pb, Cd, Bi, Sn and Sb, with a content  
of  $1,10^{-5}$  -  $5,10^{-2}$  %o takes place after 7 to 9 hours of electro-  
dialysis in a quantitative way; the content of Sn, Sb and Bi decrea-  
ses to a power of one; the quantitative separation of Sn and Sb of  
 $\text{WO}_3$  is possible with electrodialysis in concentrated acetic acid.

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High-Voltage Electrodialysis.

75-6-2/23

Communication number 1 - Separation of Contaminations from Silicon- and Tungsten Acids.

The incomplete separation of Sn, Sb and Bi of  $\text{SiO}_2$  and  $\text{WO}_3$  is caused by the easy hydrolizability of these elements in weak acid solutions. The complete separation of the contaminations by electrodialysis is with otherwise equal operation conditions dependent on the condition and structure of the deposit to be dialyzed. If the contaminations are incorporated in the crystalline lattice of the deposit, their quantitative separation is hardly, or practically not possible at all. There are 4 figures, 1 table and 13 references, 12 of which are Slavvic.

ASSOCIATION: Institute for Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy AN USSR - Moscow (Institut geokhimii i analiticheskoy khimii imeni V. I. Vernadskogo AN SSSR - Moskva).

SUBMITTED: November 5, 1956.

AVAILABLE: Library of Congress.

Card 2/2

1. Silicon acids-Contamination separation
2. Tungsten acids-Contamination separation
3. Electrodialyzers-Applications

ZARINSKIY, V. A.

USSR/Physical Chemistry - Electrochemistry.

B-12

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7321.

Author : M.B. Bardin, V.A. Zarinskiy, L.A. Saley.

Inst : Kishinev University.

Title : Polarographic Determination of Hydrogen Ions on Solid Platinum Electrode.

Orig Pub: Uch. zap. Kishinevsk. un-ta, 1957, 27, 93-100.

Abstract: The polarographic behavior of smooth Pt in HCl solutions saturated preliminarily with  $N_2$  was studied on the background of 0.1 n. KCl and 0.1 n.  $NaNO_3$  at pH = 3 to 4 without stirring. In accordance with literature data, 2 potentials of hydrogen liberation were observed: -0.56 and -1.03 v (satur. c. e.) in  $1.5 \cdot 10^{-3}$  n. HCl. It is noted that clear waves are received also with platinized and palladinized Pt electrodes, but they are shifted to the positive side. It is shown that the polaro-

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64-58-2-11/16

AUTHORS: Zarinskiy, V. A., Kots, Ya. M.

TITLE: Electrochemical Characteristics of Ion-Exchange Diaphragms  
(Elektrokhimicheskaya kharakteristika ionoobmennyykh membran)

PERIODICAL: Khimicheskaya Promyshlennost', 1958, Nr 2, PP. 51-52 (USSR)

ABSTRACT: NIIPMMKhP produced the diaphragm models for the described investigations according to stable technology. Already I. Zhukov and others (Ref. 1) used electrochemically active diaphragms for electric dialysis and they also investigated them in detail. In connection with the theory of electric dialysis, in which the changes of electrolytes in the dialyzer chamber are determined by the number of passing cations  $n_c$  and anions  $n_a$ , the present work used the analytical method for the determinations of  $n_c +$  and  $n_{Cl^-}$  in a KCl-solution. In order to be able to measure the passage number a glass apparatus was used which has a silver grid anode and a silver grid cathode coated electrolytically with silver chloride. The diaphragm is mounted between two U-shaped glass tubes, one of them being connected with

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Electrochemical Characteristics of Ion-Exchange  
Diaphragms

64-58-2-11/16

the cathode space and the other with the anode space. The  
investigated system was:

(-) Ag / 0.01n KCl / diaphragm / 0.01 n KCl / Ag (+)

In the investigations a current of 4 milliamperes was  
applied for 30 minutes and after this an hydrogen coulomb  
meter according to Barret (Ref. 12) was connected. After  
electrolysis the KCl-solution of each segment of the appa-  
ratus was titrated with 0.01 n  $\text{AgNO}_3$ -solution. The passage

numbers were calculated according to a given formula. The  
specific electric conductivity of the ion exchange dia-  
phragms was determined in a glass apparatus consisting of  
two chambers in between which the diaphragm is mounted as  
separating wall, being platinum electrode, on both sides  
(in each chamber). First the apparatus is filled with a  
0.1 N KCl-solution and the resistance is measured; then  
the diaphragm is put in and with the same solution the  
summary resistance is measured. For measuring the resistanc-  
ce an apparatus was used which was designed by the GYeOKhI

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Electrochemical Characteristics of Ion-Exchange  
Diaphragms

64-58-2-11/16

of the AS USSR together with the Electric Bulb Factory of the Order of Lenin in Moscow. The specific electric conductivity of the diaphragm was calculated from the measurements according to a formula, and the results for the various cationite and anionite types of diaphragms are mentioned in a table. From this table can be seen that the diaphragms elaborated by the NIIPM have a low-Ohmic resistance. They are recommended for use in high-voltage electric dialyses (2000 V) as they possess also a great resistance to temperature. There are 2 figures, 2 tables and 14 references, 7 of which are Soviet.

ASSOCIATION: Institut geokhimi i analiticheskoy khimii imeni V. I. Vernadskogo AN SSSR i Nauchno-issledovatel'skiy institut plastmass MKhP SSSR (Institute for Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy AS USSR and the Scientific Research Institute for Plastics MKhP SSSR)

AVAILABLE: Library of Congress 1. Diaphragms (Mechanics)--Electrical properties  
Card 3/3 2. Diaphragms (Mechanics)--Chemical properties 3. Electrolytes--Performance 4. Ion exchange

ZARINSKIY, V.A.; KOTS, Ya.M.

Electrochemical characteristics of ion exchange membranes. Khim.  
(MIRA 11:5)  
prom. no.2:115-116 Mr '58.

1. Institut geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo  
AN SSSR i Nauchno-issledovatel'skiy institut plastmass Ministerstva  
khimicheskoy promyshlennosti SSSR.  
(Electrodialysis) (Ion exchange)

75-13-3-5/27

AUTHORS: Zarinskiy, V. A., Koshkin, D. I.

TITLE: High-Frequency Titration (Vysokochastotnoye titrovaniye)  
Communication IV. A Measuring Instrument Based on the Principle of a Bridge Circuit (Soobshcheniye IV. Pribor na osnove mostovoy skhemy)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol 13, Nr 3, pp 289-293 (USSR)

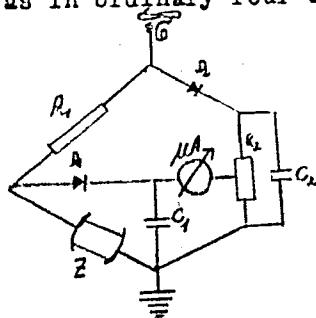
ABSTRACT: The success of the use of high-frequency alternating current in chemical analysis and in production control is above all dependent on the fact whether handy apparatus simple in construction and handling, which are sensitive to concentration measurements in a wide range of concentration, are placed at disposal. In the present paper a device is described which meets these requirements to a higher degree than a previously described apparatus (Refs 1,2). In connecting the cell for high-frequency titration to one arm of a measuring bridge on alternating current it is not possible to obtain a distinct zero point by balancing. The reason for this is a phase displacement in the arms of the bridge and an additional balancing at the ends of the measuring diagonals. As these phenomena

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High-Frequency Titration. Communication IV. A Measuring Instrument Based on the Principle of a Bridge Circuit

75-13-3-5/27

can only be removed with difficulty. , alternating-current bridge circuits have hitherto not been used in high-frequency titrations. The authors of the present paper developed a bridge circuit for high-frequency titrations free of this trouble. By means of this arrangement the zero indication of the galvanometer is obtained without any difficulties just as in ordinary four-armed bridge circuits with direct current.



G- high-frequency generator  
(35 megacycles),  
D<sub>1</sub>, D<sub>2</sub>- germanium detectors DGTs 6  
Z- cell for the titration  
μA- microammeter

The principal circuit diagram of the new apparatus just as the device itself is drawn in the paper and described in detail. By means of this new device titrations can be per-

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High-Frequency Titration. Communication IV. A Measuring  
Instrument Based on the Principle of a Bridge Circuit

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formed in a wide range of concentrations ( $0,5n-1.10^{-3}n$ ).  
Moreover different reactions can thus be investigated in non-  
-aqueous media. The manifold possibilities of application  
of the device are shown in the paper.  
There are 5 figures and 17 references, 9 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernads-  
kogo AN SSSR, Moskva (Moscow, Institute of Geochemistry and  
Analytical Chemistry imeni V. I. Vernadskiy, AS USSR)

SUBMITTED: October 2, 1957

1. Chemical analysis--Instrumentation 2. High frequency currents  
--Applications

Card 3/3

ZARINSKIY, V.A.

AUTHORS:

Zarinskiy, V. A., Mandel'berg, I. R.

32-2-10/60

TITLE:

A High-Frequency Apparatus for Physical and Chemical Investigations and its Application  
(Vysokochastotnoye ustroystvo dlya fiziko-khimicheskikh issledovaniy i yego primeneniye)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 148-153  
(USSR)

ABSTRACT:

The apparatus described makes possible the determination of concentrations of substances in aqueous and non-aqueous binary solutions, the carrying out of titrations, as well as other physical and chemical, investigations; with all this it satisfies to operation control conditions. It is portable and thus can be used for laboratories and commercial enterprises; it also works for a wide range of concentration with sufficient sensitivity. The main parts of this apparatus are: a generator with a frequency of 5 mega cycles, a stabilized rectifier, a differential detector with a milliamperemeter as indicator, as well as an operational oscillation circuit and a compensation oscillation circuit.

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A High-Frequency Apparatus for Physical and Chemical Investigations and its Application

32-2-10/60

The sensitivity of the microammperemeter is controlled by two resistances. Some cell types of different capacity are mentioned for the investigation of liquids, as well as different titrations. A schematic representation of the apparatus as well as of the cells was made. Two different kinds of determination are mentioned, a so-called Q-metric operation value and a reactive operation value. A formula for the determination of maximum sensitivity is mentioned as well as for the operational range of the cells. In collaboration with S. L. Lel'chuk and A. M. Shtifman a method was developed which was acknowledged by the Ministry for Chemical Industry. By means of the high-frequency apparatus the content of e.g. melamin-formaldehyde resin in hydrochloric acid solutions can be determined. This was found in collaboration with B. T. Ivanova and A. M. Afanas'yeva (NIIGoznak), L. M. Shtifman determined the concentration of hydrogen peroxide in aqueous solution. This is not possible with low-frequency conductometry as hydrogen peroxide decomposes if it is contacting metals. The presence of polar liquids in non-polar ones (e.g. nitrobenzene in benzene, acetone in carbon-tetrachloride etc.) increases the dielectric constant of the

Card 2/3



A High-Frequency Apparatus for Physical and Chemical Investigations and its Application

32-2-10/60

mixture and thus makes possible a determination from the calibration curve. In collaboration with T. S. Sokolova (laboratory of the "Red Hero" Works) the dry residue in lacquer CK6 was determined. The analysis lasted for 1 minute and had an error limit of  $\pm 0,3\%$ . The investigation of hydrochloric acid in silicium-organic liquids was carried out by S. V. Syavtsillo and L. M. Shtikhman, while A. A. Nemodruk investigated the end points in the titration of paranitroaniline. There are 4 figures, 1 table, and 6 references, 4 of which are Slavic.

ASSOCIATION: Institute for Geochemistry and Analytical Chemistry  
im. V. I. Vernadskiy AN USSR  
(Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR)

AVAILABLE: Library of Congress

1. Microamperemeters 2. Ammeters 3. Titrations

Card 3/3

S/078/61/006/003/014/022  
B121/B208

AUTHORS: Ryabchikov, D. I., Zarinskiy, V. A., Nazarenko, I. I.  
TITLE: Composition of the rhenium-thiocyanate complex compound  
PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 3, 1961, 641-646

TEXT: V. M. Tarayan and co-workers (Refs. 6,7) have studied the composition of the complexes of rhenium with thiocyanate. V. M. Tarayan (Ref. 7), D. I. Ryabchikov and A. I. Lazarev (Ref. 8) determined the number of SCN<sup>-</sup> addenda. Their results are in good agreement with the data obtained by I. G. F. Druce (Ref. 1). D. I. Ryabchikov and A. I. Lazarev detected the anionic character of rhenium-thiocyanate complexes, by ion exchange and suggested the following formula for the potassium salt:  $K[ReO(SCN)_4]$ . It may be seen from publications that there is no agreement on the composition and valence of rhenium-thiocyanate complexes. The authors studied this problem by electrochemical reduction with potassium perrhenate on a tungsten cathode in HCl. The electrochemical reduction of potassium perrhenate was

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S/078/61/006/003/014/022  
B121/B208

## Composition of the rhenium-thiocyanate...

carried out in a special cell designed by V. A. Zarinskiy. The ratio of electrolytic reduction of perrhenate in HCl depends on the cathode material. Reduction of  $\text{Re}^{\text{VII}} \rightarrow \text{Re}^{\text{V}}$  is possible in 7 - 9 N HCl. The sudden potential jump on the tungsten cathode from + 0.1 to 0.3 v, referred to a saturated calomel electrode, indicates the end of the reduction of  $\text{Re}^{\text{VII}} \rightarrow \text{Re}^{\text{V}}$ . The reduction is checked by titration with a cerium (IV) sulfate solution with addition of an excess of  $\text{Fe}^{3+}$ . The reaction of pentavalent rhenium with thiocyanate was studied spectrophotometrically, and the effect of the concentration of rhenium (V) and thiocyanate in the solution on the completeness of rhenium-thiocyanate complex formation was investigated. It was found that the formation of the rhenium complex begins when raising the rhenium concentration to 0.002 mole and increases with increasing rhenium and thiocyanate concentrations. The necessity of higher concentrations of pentavalent rhenium and thiocyanate ions for the formation of the pentavalent rhenium-thiocyanate complex indicates that the colored complex is largely dissociated. The anionic character of the thiocyanate complex was confirmed by determining the transference number. The results are in

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Composition of the rhenium-thiocyanate...

S/078/61/006/003/014/022  
B121/B208

good agreement with the data of Ref. 8. The existence of pentavalent rhenium in the complex was clearly confirmed and the following formula obtained:  $K_3[ReO_2(SCN)_4]$ . There are 4 figures, 1 table, and 23 references: 5 Soviet-bloc and 18 non-Soviet-bloc.

SUBMITTED: November 9, 1959

✓

Card 3/3

S/191/60/000/002/007/012  
B027/B058

AUTHORS: Shtiftman, L. M., Lel'chuk, S. L., Zarinskiy, V. A.  
TITLE: Determination of Electrolyte Traces in Organosilicon Liquids  
PERIODICAL: Plasticheskiye massy, 1960, No. 2, pp. 26-28

TEXT: A method for the determination of acid traces in organosilicon liquids by means of high-frequency currents is dealt with in this study. G. V. Troitskiy (Ref. 1) who was the first to use a high-frequency oscillation generator for determining zonal boundaries in chromatography, is said to be a pioneer in this field. B. P. Yershov et al. (Ref. 7) used the high-frequency method for acidimetric and alkalimetric phenol determination in the manufacture of pressed materials, as well as for the determination of the saponification number of dark-colored solutions. The authors experimented with samples of organosilicon liquids for the application of high-frequency titration as well as the titration with phenolphthalein as indicator. The acid numbers obtained with the former method were higher, since in this case not only  $H^+$  ions were determined at the same time, but also other ions. Besides  $H^+$  ions, other ions such

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5  
Determination of Electrolyte Traces in  
Organosilicon Liquids

S/191/60/000/002/007/012  
B027/BC58

as  $\text{Cl}^-$  can cause erosion, making it very probable that the high-frequency method can successfully be applied for determining the corrosion effect of organosilicon products. There are 3 figures, 1 table, and 7 references: 2 Soviet and 5 US. ✓

Card 2/2

S/078/61/006/005/007/015  
B121/B208

AUTHORS: Ryabchikov, D. I., Zarinskiy, V. A., and Nazarenko, I. I.

TITLE: Electrolytic method of preparing trivalent rhenium compounds

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 5, 1961,  
1138 - 1141

TEXT: The electrolytic reduction of potassium hexachloro-rhenate on the mercury cathode (platinum anode) in hydrochloric acid medium of different concentration was studied. The reduction of trivalent rhenium was examined by titration with cerium (IV) sulfate. In 1 - 2 N HCl solution  $\text{Re}^{\text{III}}$  is quantitatively oxidized to  $\text{Re}^{\text{VII}}$  by cerium (IV) sulfate consuming four equivalents of the oxidant. Titration in 8 N HCl consumes only one equivalent cerium (IV) sulfate,  $\text{Re}^{\text{III}}$  being oxidized to  $\text{Re}^{\text{IV}}$ . The stability of tetravalent rhenium compounds increases with increasing concentration of hydrochloric acid. A fine-crystalline precipitate was obtained with cesium salt from hydrochloric acid rhenium (III) solutions. The precipitate was filtered and washed out with small amounts of 2 N HCl, alcohol,

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Electrolytic method of ...

S/078/61/006/005/007/015  
B121/B208

and ether. Analysis of the compounds with respect to rhenium gave 23.6 % (theoretical Re content in  $\text{Cs}_3\text{ReCl}_6$  is 23.3 %). The valence of rhenium in  $\text{Cs}_3\text{ReCl}_6$  was determined by cerium (IV) sulfate solution (0.074 N). Rhenium (III) was found to form a halogen complex.  $\text{ReCl}_6^{3-}$  with the coordination number 6. The following Soviet authors are mentioned in the original paper: Ref. 4: Myao Tsain-shen, V. G. Tronev, Zh. neorgan. khimii, 4, 1768 (1959); Ref. 6: see Ref. 4, page 2834; Ref. 12: V.V. Lebedinskiy, B. N. Ivanov-Emin. Zh. obshch. khimii, 13, 256 (1943). There are 3 figures, 1 table, and 22 references: 4 Soviet-bloc and 18 non-Soviet-bloc. The references to English-language publications read as follows: Ref. 10: O. W. Kolling, Trans.Kansas. Acad. Sci., 50, 3, 378 (1953); Ref. 13: N. F. Curtis, J. Fergusson, R. S. Nyholm, Chem. Ind.(London), 625 (1958), Chem. Abstrs, 53, 2919 (1959); Ref. 22: E. K. Mann, W. Davidson, J. Amer. Chem. Soc., 72, 2254 (1950).

SUBMITTED: June 3, 1960

Card 2/2



Zarinskij, V. A.

S/078/61/006/005/001/015  
B121/B208

AUTHORS: Kargin, V. A., Lastovskiy, R. P., Matveyeva, T. A.,  
Ryabchikov, D. I., Zarinskij, V. A., and Varafonov, M. M.

TITLE: Purification of titanium dioxide and meta-titanic acid by the  
method of high-voltage electrodialysis

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 5, 1961, 1017 - 1019

TEXT: A method of purifying titanium dioxide and meta-titanic acid by  
high-voltage electrodialysis was devised. The laboratory set-up consists  
of a d-c source (capacity 5 - 5.7 KW), an electrodialyzer with five  
chambers of organic glass and control equipments for measuring amperage  
and voltage. The electrode spacing is 10 - 12 cm. The titanium dioxide  
to be purified is put into the central chamber of the electrodialyzer in  
the form of a suspension. Purification from the impurities Mg, Fe, Al,  
Ca, Sb, Pb, Zn, Cd, Bi, and Cu is carried out in an ionic current of Cl<sup>-</sup>  
and NO<sub>3</sub><sup>-</sup> at maximum electrode potential. To remove SiO<sub>2</sub> from titanium di-  
oxide, a dilute KOH solution is added in the anode chamber of the dialyzer.

Card 1/3

Purification of titanium ...  
g/078/61/006/005/001/015  
B121/B208  
ASSOCIATION: Institut chistykh khimicheskikh reaktivov  
(Institute of Pure Chemical Reagents)  
Institut geokhimii i analiticheskoy khimii im. V. I.  
Vernadskogo Akademii nauk SSSR  
(Institute of Geochemistry and Analytical Chemistry named  
V. I. Vernadskiy of the Academy of Sciences USSR)  
SUBMITTED: March 17, 1960

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V

S/078/61/006/005/001/015  
B121/B208

Purification of titanium ...

which reduces the  $\text{SiO}_2$  content from 0.3 to 0.03 %. Traces of Hf, Nb, and Ta are separated from  $\text{TiO}_2$  by conversion to oxalate complexes. Purification was examined by means of the quartz spectrographs of the MCH-22 (ISP-22) or MCH-28 (ISP-28)-type. The spectrographic method for the determination of Nb, Ta, Hf, and Cr is precisely described. Titanium dioxide purified by high-voltage electrodialysis, and meta-titanic acid have the following contents of impurities: Zr, Hf, Nb, Ta less than  $1 \cdot 10^{-2}$  %, Mg -  $5 \cdot 10^{-4}$  %, Si -  $1 \cdot 10^{-3}$  %, Fe - less than  $1 \cdot 10^{-4}$  %, Al -  $5 \cdot 10^{-3}$  %, Ca - less than  $1 \cdot 10^{-4}$  %, Sb - less than  $1 \cdot 10^{-4}$  %, P - less than  $1 \cdot 10^{-3}$  %, Cu - less than  $1 \cdot 10^{-4}$  %, Sn - less than  $1 \cdot 10^{-4}$  %, Cd - less than  $1 \cdot 10^{-4}$  %, Pb - less than  $1 \cdot 10^{-4}$  %. There are 4 tables and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc.

Card 2/3

KOTS, Yá.M.; ZARINSKIY, V.A.

Diffusion through ion-exchange membranes and their electro-  
chemical characteristics. Zhur. fiz. khim. 35 no.5:1103-1104  
My '61. (MIRA 16:7)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo  
AN SSSR.

(Diffusion)

(Ion exchange resins--Electric properties)

ZARINSKIY, V.A.

S/O20/62/144/003/024/030  
B124/B101

AUTHORS:

Ryabchikov, D. I., Gerlit, Yu. B., Karyakin, A. V.,  
Zarinskiy, V. A., and Zubrilina, M. Ye.

TITLE:

Extraction recovery of perrhenates with ketones

PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 144, no. 3, 1962, 585-587

TEXT: Data on the influence exerted by the properties of the ketone on the distribution coefficient  $\alpha$  in the extraction of perrhenates are presented, and the mechanism of extraction recovery of perrhenates is studied by means of some thermodynamic parameters and the infrared spectra. The relation between the ratio  $28 : MW$  (28 being the molecular weight of the CO group and MW the molecular weight of the ketone) of the extraction solvent and the distribution coefficient was found to be linear for the methyl ketone series, while, with ketones of the same molecular weight and structures different from those of the methyl ketones, deviations from linearity were established. A constant value of  $\Delta H$  of  $9.2 \pm 0.3$  kcal was established for the methyl ketones. The value for other types of ketones is somewhat lower. Generally, lower values of the "thermodynamic" distribution coefficient  $\alpha'$

Card 1/3

Extraction recovery of ...

S/020/62/144/003/024/030  
B124/B101

and  $\Delta H$  as well as a shift of the stretching vibration frequency of the C=O group were found in the presence of sodium perrhenate. Since obviously no fundamental difference is to be expected in one series of solvents concerning the mechanism of extraction recovery of sodium perrhenate, the respective deviations are probably due to the difference in the composition of the solvates formed. The infrared spectrum of water in several solvated associates of the perrhenate ion with hydrogen, sodium, potassium, calcium, and aluminum ions remained practically unchanged. When the solvating cations are replaced by a hydrophilic group such as  $(C_6H_5)_4As^+$  or  $(C_6H_5NH)_3C^+$ , some changes of the intensity distribution in the spectrum of water are observed, with the main portion of water remaining more firmly bound than in the ketone-water system. Thus, it can be concluded that the perrhenate ion is hydrated, which agrees with data in literature. The shift of the absorption band frequency of the OH group is somewhat greater in the presence of salts than in the presence of water. It can be stated that there is a direct bond between the ketone and the rhenium ion in the solvate. There are 3 figures and 1 table. The most important English-language reference is: R. D. Waldron, J. Chem. Phys., 26, 809 (1960).

Card 2/3

Extraction recovery of ...

S/020/62/144/003/024/030  
B124/B101

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I.  
Vernadskogo Akademii nauk SSSR (Institute of Geochemistry  
and Analytical Chemistry imeni V. I. Vernadskiy of the  
Academy of Sciences USSR)

PRESENTED: . November 13, 1961, by A. P. Vinogradov, Academician

SUBMITTED: November 4, 1961

Card 3/3

KOTS, Ya.M.; ZARINSKIY, V.A.

Potentials of some cation-exchange membranes. Zhur.fiz.khim. 35  
no.6:1219-1220 Je '61. (MIRA 14:7)

1. Akademiya nauk SSSR, Institut geokhimii i analiticheskoy khimii.  
(Ion exchange) (Membranes (Chemistry))



SYCHEV, A.Ya.; ABLOV, A.V.; ZARINSKIY, V.A.

High frequency study of the hydration kinetics of halobis (dimethylglyoximate) aquocobaltate(III). Zhur.neorg.khim. 6 no.4:825-829 Ap '61. (MIRA 14:4)

1. Institut khimii Moldavskogo filiala AN SSSR, i Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR.  
(Cobalt compounds)

RYABCHIKOV, D.I.; ZARINSKIY, V.A.; NAZARENKO, I.I.

Electrolytic method of preparing a compound of trivalent rhenium.  
Zhur.neorg.khim. 6 no.5:1138-1141 My \*61. (MIRA 14:4)

(Rhenium compounds)

ZARINSKIY, V.A.; FROLKINA, V.A.; GOLUBEV, A.D.

Measurement of the  $p^H$  by means of electrodes made of lithium glass. Zav.lab. 27 no.2:223-225 '61. (MIRA 14:3)

1. Institut geokhimii i analiticheskoy khimii imeni V. I. Vernadskogo AN SSSR.  
(Hydrogen-ion concentration)

RYABCHIKOV, D.I.; ZARINSKIY, V.A.; NAZARENKO, I.I.

Composition of a rhenium thiocyanate complex compound. Zhur.  
neorg. khim. 6 no.3:641-646 Mr '61. (MIRA 14:3)  
(Rhenium compounds)

ZARINSKIY, V.A.; FROLKINA, V.A.

Titration with an anode polarized platinum electrode. Reduction of rhenium to tetravalent rhenium by means of a divalent chromium salt solution. Zhur.anal.khim. 17 no.1:75-79 Ja-F '62.

(MIRA 15:2)

1. V.I.Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., Moscow.

(Rhenium--Analysis)

RYABCHIKOV, D.I.; GERLIT', Yu.B.; KARYAKIN, A.V.; ZARINSKIY, V.A.;  
ZUERILINA, M.Ye.

Extraction of perrhenates by ketones. Dokl.AN SSSR 144 no.3:585-  
587 My '62. (MIRA 15:5)

1. Institut geokhimii i analiticheskoy khimii im. M.I.  
Vernadskogo AN SSSR. Predstavleno akademikom A.P.Vinogradovym.  
(Perrhenates) (Ketones)

ANOKHIN, V.L.; ZARINSKIY, V.A.; IVASHKIN, A.V.

High-frequency sensing element for recording yield curves in  
chromatographic apparatus. Zav.lab. 28 no.8:1010-1012 '62.  
(MIRA 15:11)

1. Institut reokhimií i analiticheskoy khimii imeni V.I.  
Vernadskogo AN SSSR i Institut obshchey i kommunal'noy gigiyeny  
AMN SSSR.

(Chromatographic analysis)

ZARINSKIY, V.A.

High frequency method in organic analysis. Trudy Khim. anal. khim. 13:330-335 '63. (MIRA 16:5)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo  
AN SSSR.

(Organic compounds)

(Electrochemical analysis)



RYABCHIKOV, D.I.; YAO KE-MIN' [Yao K'o-min]; ZARINSKIY, V.A.

Complex formation of indium with some complexons. Zhur.neorg.khim.  
8 no.2:338-341 F '63. (MIRA 16:5)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo  
AN SSSR.

(Indium compounds) (Complexons)

RYABCHIKOV, D.I.; VOLYNETS, M.P.; ZARINSKIY, V.A.

Reaction of thorium with sodium hexamethylenediamine  
tetraacetate. Zhur.anal.khim. 18 no.4:542-544 Ap '63.  
(MIRA 16:6)

I. V.I.Vernadsky Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences, U.S.S.R., Moscow.  
(Thorium compounds) (Acetic acid)

GUR'YEV, I.A.; ZARINSKIY, V.A.

High frequency titration. Report No.8: Change of electric characteristics during reactions in nonaqueous media. Zhur.anal. khim. 18 no. 6:698-700 Je '63. (MIRA 16:9)

1. V.I.Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow and M.I.Kalinin Chernorechensky Chemical Plant, Dzerzhinsk.  
(Conductometric analysis)

RYABCHIKOV, D.I.; VOLYNETS, M.P.; ZARINSKIY, V.A.; IVANOV, V.I.

High-frequency titration. Report No.7: Carbonate compounds  
of thorium. Zhur. anal. khim. 18 no.3:348-356 1963.  
(MIRA 17:5)

1. Institut geokhimii i analiticheskoy khimii imeni  
Vernadskogo AN SSSR, Moskva.

ZARINSKIY, V.A.; GUR'YEV, I.A.

High-frequency titration. Report No.9: Titration of acids in an  
acetic acid medium. Zhur. znal. khim. 18 no.11:1306-1313 N '63.  
(MIRA 17:1)

1. Institut geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo  
AN SSSR, Moskva i chernorechenskiy khimicheskiy zavod imeni  
M.I. Kalinina, Dzerzhinsk.

ZARINSKIY, V.A.; GUR'YEV, I.A.

High-frequency method in organic analysis (survey). Zav. lab.  
29 no.10:1157-1161 '63. (MIRA 16:12)

RYABCHIKOV, D. I.; ZARINSKIY, V. A.

"Study of the complex formation with rare metals by the high frequency method."  
report presented at 8th Intl Conf, Coordination Chemistry, Vienna, 7-11 Sep 64.

BOKINA, V.M.; ZARINSKIY, V.A.; SHIFMAN, L.M.

High-frequency titration. Report No.11: Determination of  
perchloric acid in its mixture with nitric acid in a glacial  
acetic acid medium. Zhur. anal. khim. 19 no.5:635-637 '64.  
(MIRA 17.2)

Institut geokhimii i analiticheskoy khimii imeni Vernadskogo  
AN SSSR, Moskva.



SHTEPMAN, I.M.; LUSTOVICH, V.V.; YANINSKIY, V.S.

Determination of acid impurities in ethyl silicate by the  
high-frequency method. Rev. lab. 30 no.5:543 '64.  
(MIRA 17:5)

ZARINSKIY, V.A.; GUR'YEV, I.A.

High-frequency titration. Report No. 1: Titration of acids in dioxane-aqueous media. Zhur. anal. khim. 19 no. 1:37-'2 '64. (MIRA 17+5)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR, Moskva i Tsentral'naya zavodskaya laboratoriya Chernorechenskogo khimicheskogo zavoda imeni Kalinina, Dzerzhinsk.

GUR'YEV, I.A.; ZARINSKIY, V.A.

High-frequency method in production control. Determination  
of cyanuric acid. Trudy po khim.i khim.tekh. no.1:136-138  
'64. (MIRA 18:12)

1. Submitted June 7, 1963.

YERMOLAYEV, N.P.; ZHIDIKOVA, A.P.; ZARINSKIY, V.A.

Silicate form of uranium transfer in aqueous solutions.  
Geokhimiia no.7:813-826 JI '65.

(MIRA 18:11)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.  
Vernadskogo AN SSSR, Moskva. Submitted December 7, 1964.

AZAROVA, Ye.I.; ZARINSKIY, V.A.

Study of the reaction of some hydroxystearic acids with  $H_3BO_3$  by the high-frequency titration method. Izv. AN Turk. SSR, Ser. fiz.-tekhn., khim. i geol. nauk no. 5:32-38 '65.

Formation of borohydroxystearic acids as dependent on the pH of alcohol solutions. Ibid.:39-43

(MIRA 18:11)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR i Institut khimii AN Turkmenskoy SSR.  
Submitted April 25, 1965.

ZARINSKIY, V.A.

First International Symposium on Oscillometry. Zhur. anal.  
khim. 20 no. 11:1268-1269 '65 (MIRA 19:1)

ZARINSKIY, V.A.; GUR'YEV, I.A.

High-frequency titration. Report No.13: Titration of acids in glycol media. Zhur. anal. khim. 20 no.3:294-298 '65. (MIRA 18:5)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR, Moskva i Chernorechenskiy khimicheskii zavod imeni Kalinina, Dzerzhinsk.

ZARINSKIY, V.A.; GUR'YEV, I.A.

High-frequency titration Report 12: Indirect titration of acids in  
a dioxane aqueous medium. Zhur. anal. khim. 19 no.12:1429-1433 '64  
(MIRA 18:1)

1. V.I. Vernadsky Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences of the U.S.S.R., and M.I.  
Kalinin Chernorechensky Chemical Plant, Dzerzhinsk.



SHTIFMAN, L.M.; LEL'CHUK, S.L.; ZARINSKIY, V.A.

Determination of traces of electrolytes in silicon organic  
liquids. Plast.massy no.2:26-28 '60. (MIRA 13:6)  
(Silicon organic compounds) (Electrolytes)

ZARINY, V.

OBRUCHEV, V.A.

"M.I. Cherskaia's journey." V. Zariny, E. Zariny. Reviewed by V.A. Obruchov.  
Izv. Vses. geog. ob-va 86 no.3:302 My-Je '54. (MLRA 7:6)  
(Zariny, V.) (Cherskaia, Maria Pavlovna) (Siberia, Eastern--  
Description and travel)

ZARINY, Ye.

OBRUCHEV, V.A.

"M.I. Cherskaia's journey." V. Zariny, E. Zariny. Reviewed by V.A. Obruchev.  
Izv. Vses. geog. ob-va 86 no.3:302 My-Je '54. (MLRA 7:6)  
(Zariny, V.) (Cherskaia, Mariia Pavlovna) (Siberia, Eastern--  
Description and travel)

J-5

USSR/Soil Science. Mineral Fertilizers

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 91464

Author : Benberg K., Baloda A., Zariņa A.

Inst : AS Latvian SSR

Title : The Yield Effect of Spraying Seeds with Micronutrients

Orig Pub : Izv. AN LatvSSR, 1957, No 6, 33-34

Abstract : Results are given of vegetative (soil cultures) and field tests where seeds have been sprayed with various doses of boric acid, borate and  $\text{CuSO}_4$ . The method has been applied to several cultures: carrots, sugar and red beet, the Swedish turnip, flax, corn, oats, barley and vetch. If the seeds were sprayed and sowed on the same day, the germinating capacity was not reduced at a dosage of 8-12 g/kg for borate and 2-4 g/kg for sulphate. The crop then rose. Also, the coefficient describing the use of microfertilizers increased abruptly, compared with that of the ordinary manner of applying the fertilizers one after the other. A test with the combined application of microfertilization and seed soaking in fungicide

Card : 1/1 showed the prospects of this method. -- N.I. Borisova

BLYUMENTAL', Ya. [Blumental', J.]; ZARINYA, E. [Zarina, E.]

Procedures for paying savings banks for trade-union stamps.  
Den. i kred. 19 no.11:75-77 N '61. (MIRA 14:12)

1. Glavnyy bukhgalter gorodskogo Upravleniya Latvyskoy respublikanskoy kontory Gosbanka (for Blyumental'). 2. Glavnyy bukhgalter Rizhskoy gorodskoy tsentral'noy sberogatel'noy kassy (for Zarinya).  
(Riga--Savings banks)

S/081/62/000/001/026/067  
B151/B101

AUTHORS: Barabanov, B. V., Zarinya, E. M., Ogilets, M. V.,  
Taksar, I. M., Yanushkovskiy, V. A.

TITLE: Automatic control of a vacuum-distillation apparatus  
using radioactive relay systems

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 1, 1962, 300,  
abstract 11133 (Sb. "Radioaktivn. izotopy i yadern.  
izlucheniya v nar. kh-ve SSSR. v. 2". M., Gostoptekhizdat,  
1961, 84-85)

TEXT: For the control of a single-shell vacuum-distillation apparatus in  
the Rizhskiy maslozhirovyy kombinat (Riga Oil and Fat Combine) a system  
has been installed whereby a measuring column with an areometer floating in  
it is connected with the apparatus by means of two thin tubes. On the  
column there are two  $\beta$ -radiation sources of the BI-1 (BI-1) type and two  
pickups of the PD-6 (RD-6) type (for determination of the density and level  
of the solution). The signal from the pickups enters a standard amplifier

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Automatic control of ...

S/081/62/000/001/026/067  
B151/B101

circuit of the YP40 - SA (URAP-ZD) type and is then passed on to an automatic control block through the slave. It is envisaged that the transition will be made from automatic control to semi-automatic and centralized manual control. The installation of this system in a single shell vacuum distillation apparatus for the production of glycerin gives an economic saving of ~ 64 thousand roubles per year. [Abstracter's note: Complete translation.]

Card 2/2

ZARIOIU, Ion, ing.

Innovation movement in the DGPFL. Ind ~~leatului~~ 15 no.11:445-446 W '64.



ZARIPOV, A.S.; STRAYEV, V.A.; GRITSAY, A.I.

Industrial test of certain demulsifiers. Neft. Khim. 42 no.12:  
42-47 D '64 (MIRA 10:2)

BIKKULOV, A.Z.; KHESTKIN, R.N.; GROSHEV, B.M.; KHAMAYEV, V.Kh.;  
ZARIPOV, A.G.

Use of petroleum toluene to obtain terephthalic acid. Nefteper.  
i neftekhim. no.8:33-35 '63. (MIRA 17:8)

1. Ufimiskiy neftyanoy institut.

ZARIPOV, A.G.

Reducing the cost of preliminary oil refining. Neft. khoz.  
43 no.8:7-12 Ag '65. (MIRA 18:12)

BEREGOVY, Ye.; ZARIPOV, Kh.

Four hundred thousand tons in one navigation season. Rech. transp.  
21 no.5:51 My '62. (MIRA 15:5)

1. Nachal'nik pristani Sarapul Kamskogo rechnogo puti (for  
Beregovoy). 2. Chlen prezidiuma Nauchno-tekhnicheskogo obshchestva  
Kamskogo basseyna (for Zaripov).  
(Cranes, derricks, etc.)

SITNIKOV, G.; SITNIKOV, D.; ZARIPOV, M.

Every trailer should be in operation. Avt.transp. 38 no.7:6  
Jl '60. (MIRA 13:7)

1. Nahal'nik Avtotransportnoy kontory No.2 Sverdlovskogo  
goravtotresta (for Sitnikov). 2. Sekretar' partbyuro Avto-  
transportnoy kontory No.2 Sverdlovskogo goravtotresta (for  
Sitnikov, D.) 3. Predsedatel' mestkoma Avtotransportnoy  
kontory No.2 Sverdlovskogo goravtotresta (for Zaripov).  
(Transportation, Automotive)

ZARIPOV, M.

In the valley of the Zay River. Neftianik 7 no.2:18 F '62.  
(MIRA 15:2)

(Zay Valley--Oil fields--Production methods)

AUTHORS: ZARIBOV, N. F.

1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, No. 170222

ASSOCIATION: none

Cord 1/2

Card 2/2



L 13610-66 EWT(1)/EWA(h)

ACC NR: AP6002976

SOURCE CODE: UR/0286/65/000/024/0152/0152

INVENTOR: Gashpar, E. M.; Kulikovskiy, L. F.; Zaripov, M. F.; Brovkin, L. A.

ORG: none

TITLE: Multiple-turn contactless a-c potentiometer.<sup>25</sup> Class 74, No. 177302

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 152

TOPIC TAGS: potentiometer, ac potentiometer, contactless potentiometer

ABSTRACT: The Author Certificate introduces a multiple-turn contactless a-c potentiometer containing fixed and moving magnetic circuits with a two-section measuring winding and excitation windings (see FIG. 1). To increase the linearity of its static

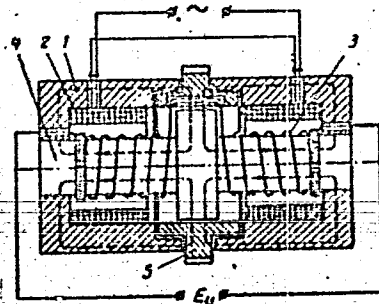


Fig. 1. Contactless a-c potentiometer

1 - Fixed magnetic circuit; 2 - excitation winding; 3 - measuring winding; 4 - fixed magnetic circuit; 5 - moving circular magnetic circuit.

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UIC: 621.317.727.1

L 13610-66

ACC NR: AP6002976

characteristics, to reduce the weight of the moving parts, and to improve its protection against the action of external magnetic fields, the two-section measuring winding is made in the form of a current conducting spring differentially wound on the fixed magnetic circuit; the moving magnetic circuit is made in the form of a ring to which the joined terminals of the measuring winding are attached. Orig. art. has: 1 figure. [JR]

SUB CODE: 09/ SUBM DATE: 17Feb64/ ATD PRESS: 4186

1w  
Card 2/2

VINOKUROV, V.M.; ZARIPOV, M.M.; POL'SKIY, Yu.Ye.; STEPANOV, V.G.;  
CHIRKIN, G.K.; SHEKUN, L.Ya.

Electron paramagnetic resonance of  $Gd^{3+}$  and  $CaF_2$ .  
Fiz. tver. tela 4 no.8:2238-2242 Ag '62. (MIRA 15:11)

1. Kazanskiy gosudarstvennyy universitet imeni  
V.I. Ul'yanova-Lenina.  
(Paramagnetic resonance and relaxation)  
(Gadolinium)  
(Calcium fluoride)

ARKHANGEL'SKAYA, Ye.D.; ZARIPOV, M.M.; POL'SKIY, Yu.Ye.; STEPANOV, V.G.;  
CHIRKIN, G.K.; SHEKUN, I.Ya.

Electron paramagnetic resonance of  $\text{Cr}^{3+}$  in  $\text{K}_2\text{Zn}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ .  
Fiz. tver. tela 4 no.9:2530-2533 S '62. (MIRA 15:9)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-Lenina.

(Paramagnetic resonance and relaxation)  
(Tutton's salts)